ABSTRACT OF THE DISCLOSURE

An apparatus for crimping a stent by segmental radial compression, comprising a stationary base member; a rotatable drive hub which is moveable in relation to the stationary base member; and a crimping head aligned with respect to the stationary base member and to the rotatable drive hub. The crimping head includes at least ten segments. The segments each have a proximal end and an angled distal end with at least one angled side face terminating in an edge of a predetermined length, each segment having a centerline between the proximal and distal ends, each segment having a proximal point and a distal point, the distal point being disposed on the centerline and the proximal point being disposed off the centerline, and the proximal point being pivotally coupled by pins to the stationary base member and the distal point being pivotally coupled by pins to the rotatable hub member. The segments are arranged so that the segment distal ends are disposed adjacent to and a predetermined distance away from a central point and defining a central aperture with a cylindrical dimension. Also, the segment centerlines extend therefrom toward the segment distal ends and are oriented away from the central point. The segment distal ends move closer to the central point upon rotation of the rotatable hub member in a predetermined direction, whereby the stent is disposed around a base substrate, aligned in the central aperture and crimped round the base substrate upon rotation of the rotatable hub. A method of crimping a stent is also disclosed.

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